



# **ATLANTA JDL COMPACT SEWERAGE TREATMENT & REUSE WATER PLANT**

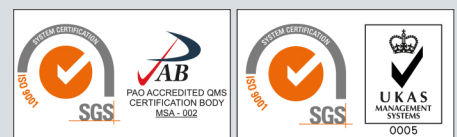
**FMBR Technology**



- No Sludge**
- No Foul Odor**
- No Noise**
- Decentralize Mode**
- Fully Automatic**
- Reuse Water Production Unit**
- Compact Sewerage Treatment Unit**
- Superior Effluent Quality**
- Less Land Cost**
- Less Electrical Cost**
- Zero Chemical Cost**
- Less Maintenance Cost**
- Less Operation Cost**
- Environmental Friendly**

## **Atlanta Water Solution Division**

Expert for Intelligent Water Management





# FMBR TECHNOLOGY

State of the Art Wastewater Treatment Technology

## Technical Principle of FMBR

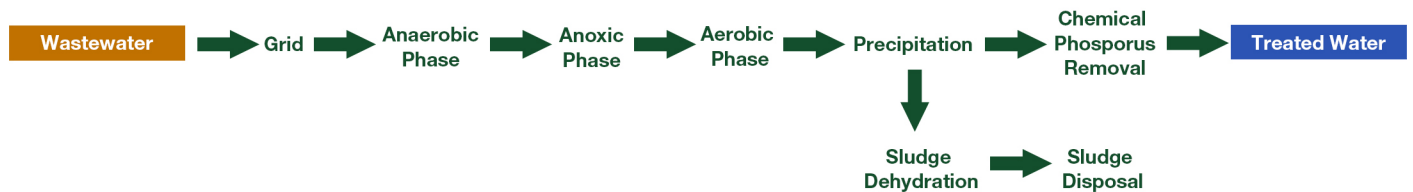
FMBR technology is an innovative technology by cultivating composite bacteria in the sewage treatment system and creating a facultative environment. In this environment, various microorganisms are coexisted and form a microbial food chain, and the simultaneous and efficient treatment of sewage and sludge is achieved.

The FMBR process is a short treatment process which can synchronously remove BOD, nitrogen and phosphorus and discharge little organic sludge during operation period. The comparison of FMBR with traditional treatment is shown in figure below.

## FMBR Technology



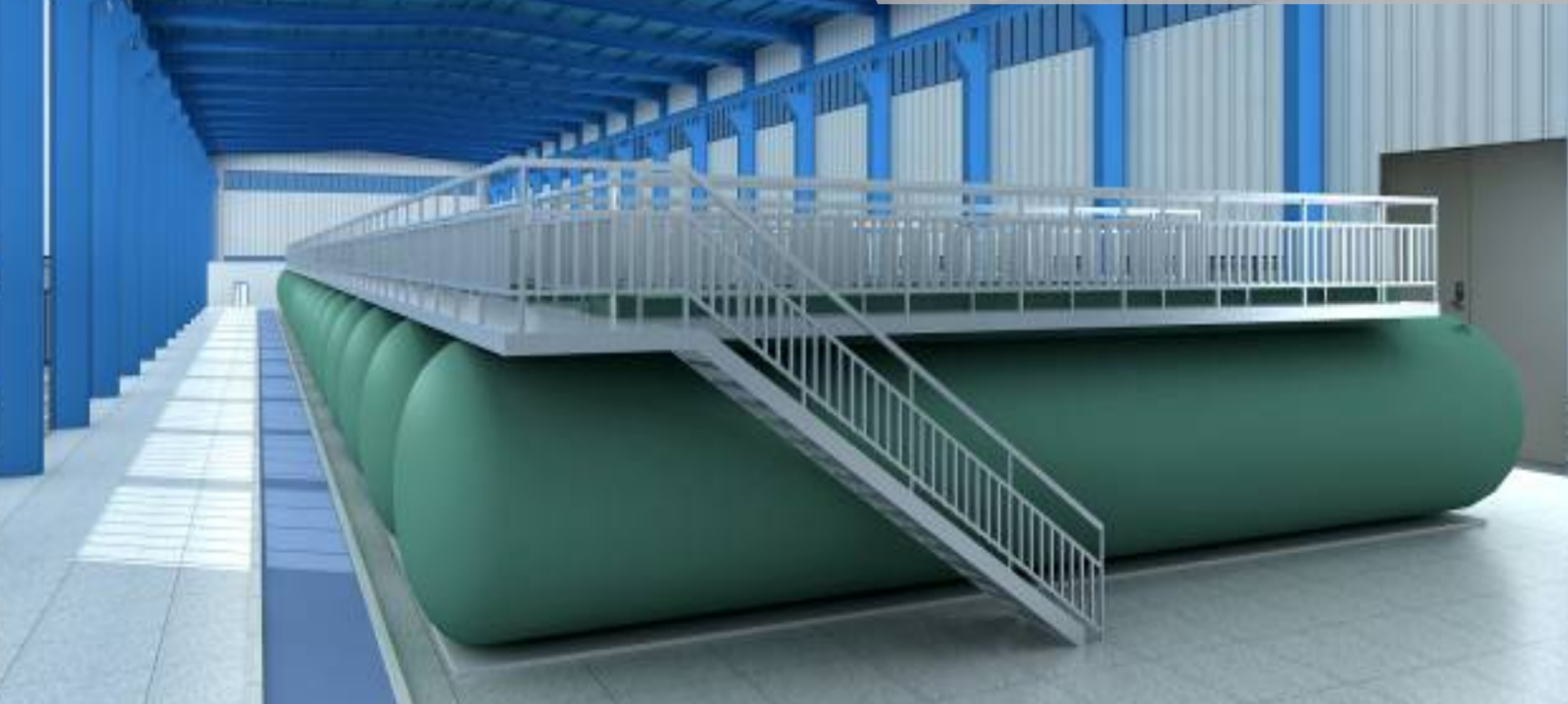
## Traditional Treatment



## Advantages of FMBR Compared with Traditional Technology

As shown in above, we can find that the traditional wastewater treatment technology has a complicated treatment process as well as discharges a large number of sludge. This will cause adjacent effect resulting in the mode of long distance conveyance and centralized process for the wastewater treatment, That is to say the household wastewater is collected by the pipeline and then conveyed to a place where is far away from the wastewater source. This mode exists problems as follow:

1. Great investment in pipeline, 80-90 % of total investent.
2. Serious leakage of pipeline. Due to the construction quality and uneven settlement, leakage in pipelines is unavoidable and causes large area cross contamination of sewage and groundwater.
3. The sludge is difficult to dispose and the treated water is difficult to reuse. Sludge disposal usually adopts methods as landfill and incineration, which require large area of land and fuel as well as generate secondary pollution. At the meantime, the treated water is far away from the downtown for reusing.



## ATLANTA JDL COMPACT STP UNIT

MODEL	SPECS Ø x L x H (M)	POPULATION	LAND USE	WEIGHT (TON)	OPERATION WEIGHT (TON)
ATLANTA FMBR - 50	2.0 x 6.5 x 2.8	500	13.0	4.0	24.8
ATLANTA FMBR - 100	2.0 x 9.1 x 2.8	1000	19.0	5.5	33.5
ATLANTA FMBR - 200	2.8 x 9.5 x 3.5	2000	27.0	10.0	65.0
ATLANTA FMBR - 300	2.8 x 12.3 x 3.5	3000	35.0	12.5	85.0
ATLANTA FMBR - 500	2.8 x 15.0 x 3.5	5000	42.0	15.0	110
ATLANTA FMBR - 1000		10000			
ATLANTA FMBR - 2000		40000			
ATLANTA FMBR - 5000		100000			

PROJECT	POLLUTANTS	pH	COD (mg/L)	BOD <sub>5</sub> (mg/L)	NH <sub>3</sub> -N (mg/L)	Color Measure (degree)	Suspend Solid (mg/L)
	INPUT WATER QUALITY	6 ~ 9	100 ~ 400	50 ~ 200	20 ~ 30	10 ~ 80	100 ~ 200
	AVERAGE	7	250	125	25	45	150
	WASTEWATER DISCHARGE STANDARDS ATLANTA FMBR	6 ~ 9	≤ 100	≤ 50	0.5 ~ 7.5	≤ 30	≤ 150

# APPLICATION PERFORMANCE

Atlanta JDL Compact Sewerage Treatment & Reuse Water Plant

## International Project - Manufacturer of Integrated Wastewater Treatment Facilities for International Peace Keeping Force

In 2010, we competed with 37 international companies for the tender of supplying wastewater treatment facilities to international peace keeping force in New York. Atlanta JDL ranked No.1 in the tender by virtue of FMBR Technology and won the bidding, now FMBR equipment has been applied in more than 500 troops camps and some countries alongside the Belt and Road.



Inspection of the prototype by organization's experts



Exterior of the prototype



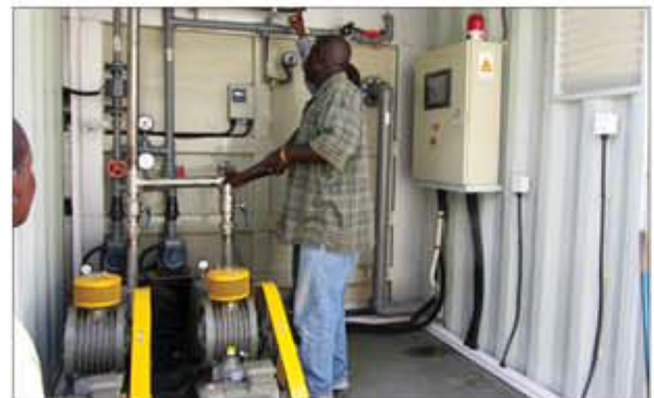
Integrated facilities ready to export



Training sessions



Onsite



Organization's staff are learning how to operate